

## SPECIAL ISSUE

*Charles Elachi  
takes the helm at JPL*



## Director Elachi's 2020 vision

By Angela McGahan

**"Our mission is to explore the Earth, our solar system, and the universe that lies beyond, and share the adventure of discovery with the public."**

— Dr. Charles Elachi

**O**N MAY 2, JPL'S NEW DIRECTOR, DR. CHARLES ELACHI, PRESENTED THE VISION THAT WILL TAKE THE LAB INTO THE NEXT GENERATION OF SPACE EXPLORATION.

Elachi's vision incorporates the comments and ideas voiced during his three months of meetings with JPL employees, and builds on a course set by Elachi's predecessors.

Elachi told a standing-room only crowd in von Kármán Auditorium that where once JPL's challenge was to explore the planets in our solar system, the challenge today is to explore and understand the planets in our solar system, and to expand the frontier of space exploration to discover and understand neighboring solar systems as well as our own. To maintain the Lab's cutting-edge legacy in space exploration, Elachi stressed sharing the knowledge and adventure of space exploration with the most important audience—the American public.

In the next 10 years, JPL plans to launch close to 25 missions, and some 25 payload packages. In order to accomplish these goals, Elachi announced a reorganization and a restructuring of the Laboratory. He stated five reasons for the reorganization: to ensure mission success, to promote program development and execution, to increase support for technology and science, to achieve administrative excellence, and to build the interplanetary network and information systems of the future.

The program directorates will be organized around mission areas of Earth, Solar System, Astronomy and Physics, and Interplanetary Network. Elachi noted the advantages of this approach. "The missions will have a permanent home base for support, and this reduces the number of hand-offs of projects from one directorate to another," he said.

Dr. Firouz Naderi will lead the Solar System Exploration Programs Directorate, which will be in charge of developing concepts for JPL's solar system exploration missions. Naderi will also continue to hold his current position leading the Mars Exploration Program Office. The newly created Planetary Flight Projects Directorate, which will design, build and fly planetary spacecraft, will be headed by Chris Jones. Larry Simmons will direct a new Astronomy and Physics Directorate. This organization will oversee JPL's spacecraft and instruments that explore the influence of the sun within our solar system or that look out beyond the solar system. A new Earth Science and Technology Directorate will be headed by Dr. Diane Evans. In addition to Earth sciences missions, this organization will conduct JPL's work for non-NASA sponsors, including other federal agencies such as the Department of Defense.

Elachi believes that innovations in technology and science best prosper when they are tied to missions. His plan calls for a Chief Technologist in addition to the existing position of Chief Scientist to serve in the Director's Office. This newly created position will be held as an additional duty by Dr. Barbara Wilson. Dr. Thomas Prince will join JPL as the Laboratory's Chief Scientist. A professor of astronomy at Caltech, Prince is the NASA mission scientist for the Laser Interferometer Space Antenna (LISA) project. He succeeds Dr. Moustafa Chahine, who will remain at JPL to conduct research.

In addition to the director's staff, each of the program directorates will also have a chief technologist and chief scientist. These directorates

will be responsible for the projects and programs as well as for the associated science and technology.

Thomas Gavin has been appointed to the new position of JPL Associate Director for Flight Projects and Mission Success. This position was created to emphasize the importance of project execution, and Gavin will oversee JPL's development of flight systems and associated engineering infrastructure.

Also continuing on the Executive Council will be Dr. Harry Detweiler, who heads the Office of Safety and Mission Success, and Caltech General Counsel Harry Yohalem. Two external relations executives who previously served as ex-officio members of the Executive Council will now become full members—Blaine Baggett, executive manager of the Office of Communications and Education, and Dr. Richard O'Toole, manager of the Office of Legislative and International Affairs.

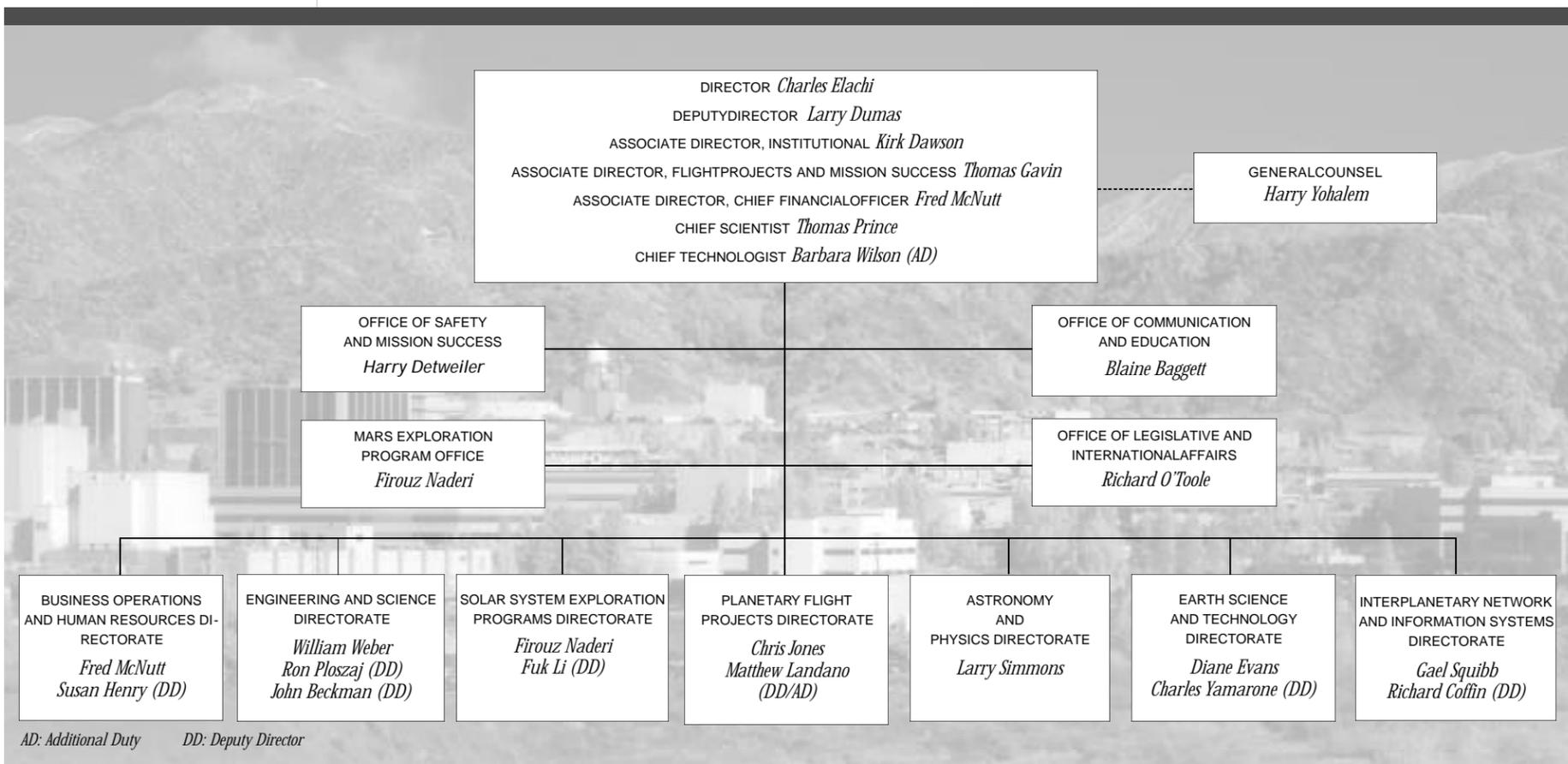
The Telecommunications and Mission Operations Directorate (TMOD) has been renamed the Interplanetary Network and Information Systems Directorate, and will continue to be headed by Gael Squibb. JPL's Institutional Computing and Information Systems (ICIS) office will become part of this directorate.

To streamline administration procedures, a new directorate has been formed. JPL's financial management, business operations, administrative support and human resources organizations will be consolidated into a new Business Operations and Human Resources Directorate, headed by Chief Financial Officer Fred McNutt. Susan Henry will be McNutt's deputy and will continue to serve on the Executive Council.

Perhaps the most fundamental change, and one that Elachi believes will contribute toward creating future generations of experienced senior managers for the Lab, is that Executive Council members will be appointed for defined terms of three to five years. At the end of the term, each Executive Council member will be considered for a reassignment or extension. In addition, Elachi has instituted Management Councils, which will be comprised of EC members and selected employees. The Management Councils will act as a reviewing authority before forwarding issues to the full EC. To review the new organizational chart, log on to [www.jpl.nasa.gov/dailyplanet](http://www.jpl.nasa.gov/dailyplanet).

The new organizational structure and new faces in Executive Council are poised to take the Lab into the next 20 years, and to find the answers to what Elachi calls "irresistible questions" of how the universe began, how it evolved, how life began, and, are we alone in the universe? Because, as Elachi states, "JPL exists to envision and to create the future, to continue to do what has never been done before, and to go where no one has gone before."

Above: Bob Brown/JPL Photo Lab



AD: Additional Duty

DD: Deputy Director

**Good morning.** Three months ago I promised you that I would spend the time between then and today listening to your ideas and your suggestions. I told you then that I would provide each and every employee the opportunity to meet with me. That promise was fulfilled as of two days ago. The dialogues were a terrific experience and I enjoyed them very much. In fact, I enjoyed it so much, I'm repeating this commitment for the coming year.

I learned a great deal from our dialogues. You gave me a lot to think about. I especially appreciated your thoughts regarding what needs to be done differently to help us excel in our work. I was reassured—actually I was inspired—to hear that your passions and mine are the same. We share the common desire that JPL remains the world's leading organization for robotic space exploration.

#### Vision

So how can we assure ourselves of world leadership? Where are we headed? And as many of you asked of me, how do I envision JPL's future?

What I can tell you is that we will continue the tradition of excellence and boldness that characterizes both of our parent institutions: NASA and Caltech. We will continue to do what has never been done before and to go where no one has gone before. Easily said. Not so easily done. But that's why JPL exists: to envision and then create the future.

When Bill Pickering, the first Director of JPL in the NASA era, was asked in the late '50s what was his vision for JPL, his answer was "To explore the planets of our solar system." He, Bruce Murray, Lew Allen, Ed Stone and all past JPL employees have left us an unbelievable legacy. We are acknowledged worldwide as the people and the place that opened the planetary frontier to humankind.

For today and tomorrow we have to build on Pickering's vision. Where once the challenge was to explore the planets of our solar system, we now want to understand these places. And in addition to exploring and understanding our solar system, we want to discover neighboring solar systems and explore them too.

And understand them not just for ourselves, but share this knowledge, share the excitement and adventure of space exploration with those who pay the bills—the American public.

When I think of the future, I cannot help but think of the next generation. The next generation of rockets, spacecraft and instruments. The next generation of JPLers and JPL's leadership. And, of course, the next generation of challenges and discoveries.

In the next 20 years, I like to think of it as JPL's 2020 vision. We want to answer fundamental questions that resonate with people from all walks of life. How did the universe begin? How has it evolved? What will be its fate? How did life begin? And are we alone in the universe? Answering these questions involves not only the expansion of our physical frontier, but also our intellectual frontier.

Our role in finding answers to these deep questions requires us to explore and understand the biological, physical and chemical evolution of our and neighboring solar systems. Expanding into these physical and intellectual frontiers means we will be probing and exploring thousands of stars in our neighborhood, eventually detecting and imaging other blue dots out there that are similar to our own planet.

We want to do all these things, first of all, because the questions are simply irresistible. But we also want to find these answers so that we can apply that knowledge to understand the evolution and dynamics of our own planet—to become better stewards of our home for today and for the generations to come.

#### The Territory Ahead

This first decade of the 21st century will be an amazing time for us. The territory ahead of us is breathtaking. The missions required to get there are bold. They are audacious. And they are plentiful. In the next 10 to 15 years there are some 25 flight missions to be launched and some 25 payload packages. JPL is going to be a very busy place. The days ahead will require a new generation of spacecraft and instruments, new technology and new software. In the next 10 to 15 years we intend to:

- Establish permanent robotic presence on and around Mars
- Probe below the surface of Europa
- Explore Titan and the Saturnian system
- Bring back samples from comets, asteroids, Mars and the solar wind
- Visit the far reaches of the solar system, Pluto and the Kuiper belt and the immediate neighborhood of our sun
- Map the infrared sky and image the disks around stars—so we can shed light on how the universe evolved
- Search for planets around neighboring stars
- Establish the interplanetary Internet of the future
- Shed light on the fundamental drivers behind the dynamics of our restless Earth: our oceans and atmosphere, and literally earthshaking phenomena like volcanoes and earthquakes
- And probe into the fundamental laws of physics by using the space environment and searching for gravitational waves.

#### An Environment To Excel

These missions require the best in the world, and that is you. Each and every one of you. These missions require us to be leaders in technology, science, engineering, business administration, services, management, and communications with the public.

We need not only to be leaders in what we do but also in how we do our missions. In this limited budget environment we have to be efficient and nimble. And we must be affordable without compromising safety or mission success.

Now, let me address what we will be doing to help in creating the environment in which you can continue to excel.

From what you told me, a solid foundation is already in place:

- You and your colleagues are the best and you have extraordinary talents (I guess we are the best so there's no reason to be humble)
- You are excited about and dedicated to your work
- You are rightfully proud of being at JPL, for you know you are engaged in work the rest of the world can only dream about
- We have a solid base of experienced people
- We have a very exciting set of challenges ahead of us

There were a lot of very good ideas, and we do have a number of serious issues that need to be addressed. As we all know,

space exploration is a tough business. Space is a harsh and unforgiving environment. You don't get many second chances. And we have to succeed in our current missions in order to realize the future I have just described.

There's not much we can do about changing the unforgiving environment of space. But we do have it in our power to influence the environment here at the Laboratory. We have it in our power to create an environment that helps all of us to excel. I've listened to your ideas about what needs to change. And I am in agreement with many of them. And those we are going to act on.

Let me begin by touching on two questions that were frequently asked: "Should we worry about other organizations doing some of the planetary missions?" and "Are we going to be doing in-house work or do all contract work?"

My answer is very simple. Our role is like that of Lewis and Clark. We are discovering the passages and routes where others will follow. We should not worry that others want to do what we have done, that they will follow us. Of course they will! In fact, we want them to, because we are going to be exploring the next frontier.

At the same time, I assure you that we will always have at least one in-house flight project in development, at least one in-house flight project in definition, and a set of in-house flight instruments and, with the support of our contractors, we will be responsible for operating all of our missions.

Thus, the vast majority of you will always be working on in-house, hands-on work. NASA wants us to stay the best and attract the best, and to keep hands-on experience so we can be successful in all our responsibilities.

However, we should not forget that NASA has entrusted us with major elements of the national space exploration program. We have to step up to manage and coordinate a wide spectrum of missions that cannot all be done in-house. So, we will engage our industrial partners on many of our missions, and our academic partners in all of our missions. We will focus our in-house efforts on pioneering missions and instruments. We will acquire from industry what industry can do well. And make no mistake about it: it is as important to put top-quality JPL talents on our contract work because we are ultimately responsible. We have the responsibility of making sure all our NASA missions are successful. In addition, we can always learn from our partners.

#### Infrastructure

From many of you I have heard that you are concerned about our technical infrastructure. I share this concern and plan to provide more support for upgrades.

Of course, to do this requires money. In fact, many of the needs you identified can only be answered with additional funding. We don't have a printing machine for new money. But we can undertake a review of how we spend the dollars we do control—our burden funds. In the next three months we're going to take a long hard look at the burden budget, conduct a zero-based review, and in some areas we may reprioritize within our burden budget rates. This will require us to make tough choices because we have to live within our means and make sure our projects stay affordable. Lower priorities will drop off.

#### Rules and Procedures

I also heard from many that you are being overloaded by rules, procedures and processes. This tendency to regulate—even over-regulate—is common to any large institution. But we experience them as barnacles that slow down an otherwise fast-moving ship.

Do not mistake what I am about to say. We have to be realists about rules and procedures. We want to be ISO-certified because it is the right thing. We will follow our contractual agreements and the laws. Good rules and procedures are legitimately there because they are the essence of our past experience and help ensure that we will be successful in the future.

As many of you know, we created DMIE—Design and Maintain the Institutional Environment—to try to simplify our life. But in many cases it's not turned out that way. And we need to do something about it.

We are going to restructure ownership of our rules, procedures and processes. In the recent past we have had a triangular ownership of these important documents by a combination of Line Managers, Project/Program Managers and Process Owners. I am directing that all needed processes will be assigned to either a line or Project/Program manager for ownership. They will have the option to assign them to someone in their organization, but they will be held responsible for the outcome.

We are going to reexamine all the rules in DMIE and make sure to only keep the necessary ones. We are going to make them simple, clear, understandable and easily accessible. Although process owners will develop rules and procedures, only the deputy director and associate directors have final approval on rules that have a wide impact on employees.

In return, I expect the rules that remain on the books will be strictly followed.

We will start making these changes now. Rome wasn't built in a single day, and neither was DMIE. So, it is going to take some time to do this. But I expect to report back later this summer that a simpler system is well underway.

There have also been questions about my support of process-based management. I have consistently answered that JPL has always had processes. We just didn't call it "PBM." At its heart, the "process" philosophy requires that we always look at the full cycle of any job, from beginning to end, and ask, "What have we learned from past experiences and how might we do it better next time?" That's just good business practice. However, processes are put in place to help people do their job, not the other way. We rely on people—you—to do the job right using these processes.

#### Engineers, Scientists and Technologists

From the engineers, scientists and technologists, I heard that many people move into management just to get a promotion and associated benefits, such as on-Lab parking. Also, I heard that the slotting system does not give the opportunity for promotion on a regular basis to acknowledge people growth and expanded contribution.

I have asked Human Resources to re-examine our promotion and slotting system by mid-July and come up with options that will directly address these issues. This will include assessing career levels and benefits as well as the dual path for individual

contributors and managers. I assure you that these issues will be thoughtfully considered and acted upon for the administrative as well as technical jobs.

#### Group Supervisors

From the technical group supervisors, I heard that you are overburdened by non-technical, unfunded mandates. We're going to change this. When you are requested to do any significant non-technical activity, we intend to provide you with the resources needed, funding and/or personnel, to minimize this extra demand on your time.

In return, I expect you to be engaged and take full responsibility for the quality of the work of each and every member of your group.

#### Project Managers

I heard from project managers that you are being buried by reviews. We are already working with NASA to reduce the number of reviews and streamlining them, and I am encouraged by the response. In return, I expect you to always request and encourage peer reviews by experts in line management, and engage the Section and Division Managers in your activities.

#### Line Managers

Even though the project managers have the full and complete responsibility and accountability for their project, I also hold each and every line manager responsible for the activity and quality of work done by any member of their organization. To help the mutual engagements between projects and line, I am restarting Monday afternoon Director Review and Discussion with required attendance by Division Managers, Program Managers, appropriate Project Managers and Executive Council members.

#### Business Administration

I also heard from project managers that they need more support from the Business Administration Divisions, who are already overworked. To address this, we are going to find them more billets and funding. In addition we are going to make a special effort to develop career paths and opportunities in our business operations and administration areas, so you can grow in your career at JPL and attract the best people and retain them.

In return, I challenge everyone who works in support of our projects to simplify and streamline your processes, always think customer satisfaction, and make your services the envy of any organization.

We want to be number one in everything we do, be it technical or administrative, because we are one team and depend on each other to succeed.

#### Management Communication

Everywhere I heard that you want more communication with Senior Management. As I have already said, I am going to walk the talk by promising that for the next 12 months, I will provide the opportunity to every employee to meet with me at least once. On top of that, I am committing to meeting with each Group Supervisor at least once every six months, and each Section Manager once a quarter. I am also dedicating a half-day each week for lab visits. And I expect every Executive Council member to do better than me in their own organization. And they have given their commitment to do so.

I also want to encourage lateral communication, particularly to regularly brief the business operations side of the house on our missions and technical achievements so they can fully share with our adventure. And to walk the talk, I have committed to give all interested administrative personnel a presentation on our spaceborne imaging radar activities on June 12 at 2 p.m., here in *von Kármán*.

#### Communicating With the Public

Communicating effectively among us is essential. So is sharing the adventure and knowledge of what we do with the nation. This must and will be a priority for all of us. Just over two years ago, JPL created the Office of Communications and Education to coordinate our many communications activities. This has been a huge undertaking that requires a big shift in our thinking about how to engage the public. NASA has been most supportive in their endorsement of this approach and are encouraged by the results so far.

# JPL and the



Following  
are prepared  
remarks by  
JPL Director  
Dr. Charles  
Elachi,  
presented in  
an all-hands  
talk in  
von Kármán  
Auditorium  
on Wednesday,  
May 2.

And some of their innovations are being done expressly for you—which gives me the chance to make a plug for the “Daily Planet,” JPL’s brand-new daily electronic newspaper. In fact, today marks the inaugural edition of this e-publication. If you were at your computer right now, you could go to [www.jpl.nasa.gov/dailyplanet](http://www.jpl.nasa.gov/dailyplanet) and watch a video stream of this address—live.

When I met with our JPL educators, media specialists and outreachers, they expressed just one overriding concern: they want to enlist the entire Lab to help them do a better job of communicating with the public. And we are going to help them. I expect every project and every program to support our efforts to consolidate our messages in thematic approaches. Because when we do, everyone and every project at JPL will reap the benefits.

#### Other Issues

There are other important issues that you brought up, which when addressed, will help in creating an environment for success. I intend to aggressively work in finding solutions to all of them. They include:

- Supporting researchers and protecting our core competencies
- Providing opportunities for more exchange with universities
- Developing more training and mentoring programs, and capturing the knowledge base
- Simplifying the flow of funding from sponsor to the proposer
- Examining our benefits to address the evolving needs of our employees such as health care, maternity leave, and child care
- Improved desktop computer service
- Of course, we will keep looking at parking.

Some of these are going to take some time, but I promise you they will be getting my attention and that of the rest of senior management. And I promise you that we will be relentless until they are all addressed.

My final point about creating an environment to excel has to do with all of our services.

Without trying to give a plug to any particular car rental company, I am continually struck by the quality of their process and service. I order a rental car by phone, show up at their lot, and there is a sign with my name telling me where my car is waiting for me—not me waiting for the car—and all of the paperwork has already been done. I don’t even have to sign anything to get the car out of the lot, just show my I.D. When I return it, a person comes to me with a handheld terminal, prints the bill and hands it to me in less than 1 minute. Now, that’s a process. And that’s service. I am sure a lot of thinking went on to set up this process, and I am sure a lot of work goes on behind the scenes, but it is on the provider’s side, not the customer’s side. And to acknowledge this good service, numerous times I called or wrote a personal note to the company’s president thanking and recognizing individuals who were particularly helpful. And that’s the kind of process—the kind of service—I want everyone to strive for in supporting our projects, programs and employees, and I expect the users to pro-actively acknowledge good service. I expect from each one of you to always ask yourself, “How can I do my job better today than yesterday?” Because that’s the only way we can stay at the forefront and ahead of everyone else. It is not easy to be the leader. As a matter of fact, it is very hard and it requires the best. But that is why you are here.

#### Values

I want to turn now to say a few words about values. We have articulated our important values to be innovation, quality, integrity and openness. These are not changing. In fact, I want to stress them more. And for today I want to touch on just one of them: Openness, in its broadest sense. For me, openness includes respect for others, treating each other professionally and as members of one family, open to ideas and people of different backgrounds, and be fully at ease to share problems and concerns with colleagues and management because they will always be anxious to listen and help.

During a meeting with one of the teams in Division 35, Mary Reaves told me about what she recently has been missing the most about her work. She told me she misses the feeling of the “JPL Family” that she has gotten to love and cherish during her 25 years at JPL—that good and open feeling that we were all one. Well, Mary, we should all work hard to keep the JPL family environment strong. This is our Lab. It is here because of all of us.

My goal is very simple. It is to have each employee every

morning look forward to coming here to work with his or her JPL family, and every evening to look forward to going home to their personal family to tell them about the exciting work they did on that day.

One important way to create this sense of family is to keep breaking down the barriers that can divide us. Too often people view the Lab as being composed of camps—the line vs. the projects, the technical side vs. the administrative side of the house. Before long, this way of thinking erodes into “us vs. them.” You have heard of “It takes a village.” In our case it takes a laboratory—this entire laboratory—to get us to Saturn, to Mars, and to all the places in the universe we want to go.

I expect professionalism out of everyone. It doesn’t matter what you do. You’re here because you are or you want to be the best. I expect every employee, regardless of what you do, to be treated with the respect you deserve. You should have no fear to say what you think or what you are concerned about, as long as it is professionally done.

Another way of making sure everyone is a member of the JPL family is to be open to diversity. As any biologist will tell you, our world teems with diversity. It is what makes our world so vibrant and interesting a place. And as any historian will tell you, it is the diversity of people coming from many places and cultures that has helped make our nation such an extraordinary place.

Diversity also makes JPL a better place. Diversity gives rise to new and different ideas. And the next generation of space missions will need new and different ideas. We should continue to do more to make use of the talents of women and minorities at the Lab so that they know they are a part of the JPL family. And we must redouble our efforts to recruit more members of these groups to be part of the JPL family.

#### Organization

I realize that many have heard that there are plans afoot to reorganize part of the Lab. This is true. Your senior management has been hard at work looking for ways to better group our resources in more streamlined ways so we can be ahead of the future. We are doing it for five very important reasons.

- Ensure mission success
- Promote program development and execution
- Increase support for technology and science
- Achieve administrative excellence
- Build the interplanetary network and information systems of the future

#### Mission Success and Program Execution

As I’ve already said, over the next 10 years, we have about 25 missions to be launched and about 25 payload packages. This requires a lot of attention from our most experienced people and we need to broaden the base of people experienced in multi-projects and program management. To emphasize the importance of project execution, we are creating the position of Associate Director for Flight Projects and Mission Success in the Director’s Office. In addition, the program directorates will be organized around similar mission areas of Earth, Solar System, and Astronomy and Physics and will contain all the corresponding activities: science, technology, mission formulation, implementation and operation. The missions will now have a permanent home base for support and we significantly reduce the number of hand-offs from directorate to directorate.

I’ll have more to say on this in a few moments.

#### Increase Support for Technology and Science

Our innovations in technology and science will best prosper when they are tied to missions. That’s where the funding is. That’s where the necessities are. And if necessity is the mother of invention, it only makes sense to bring technologists and scientists closer to our programs and projects. There will be a Chief Technologist as well as a Chief Scientist working with me in the Director’s Office. There will also be a chief technologist and chief scientist for each of the program directorates. These directorates will be responsible for the projects and programs as well as for the associated science and technology.

I realize there may be questions about our Defense work. Our relationship with key Department of Defense agencies has always been of value to NASA and to JPL. Our Defense work in recent years has shifted to be mostly in advanced technology, which is essential for our overall mission. It is my plan that JPL continues

to proactively work with DoD as well as other agencies such as the National Science Foundation, the National Oceanic and Atmospheric Administration and the National Institutes of Health, and to continue to be an important national asset to create and transfer technology. We will do this work with the same quality of excellence as all of our work.

#### Interplanetary Internet and Information Systems

Besides listening to all of you, I also spoke to people outside of JPL who shared their advice with me. I often asked: “What is the most unique thing about JPL? What capabilities, what assets do we have that can be found nowhere else?”

I heard many answers. But one that kept coming up was the Deep Space Network. We now need to create the next generation of the Deep Space Network. And that requires creating the interplanetary Internet of the next 20 years. This is a very exciting challenge. The DSN will be the backbone for this network, and the spacecraft we will have across the solar system and around Earth are information nodes that will interconnect to our network across the Lab and to the World Wide Web.

#### Administrative Excellence

I’ve spoken already about streamlining our administrative procedures. To help in this, we’re combining all of our business operations, administrative support, and human resources into one directorate. I believe that this combination will result in synergies that will lead to better support for the Laboratory as a whole.

And to all of you who work in the many non-technical jobs that support our missions, I know much is asked of you. And I know that it must be tough at times when the spotlight is always on the mission and the science. You don’t get many CNN crews interested in doing stories about accounting, procurement, the benefits package, or the like. But your work is absolutely vital. You are an integral part of our team and you are essential for all of us to be successful in our joint adventure.

I know you all want to see the org chart. But I want to stress that org charts are just a way of grouping our resources. What really matters is what people in those boxes do and how they lead or are led. I want to announce a fundamental change that I believe will help us create future generations of experienced senior managers for JPL:

- All Executive Council members will be appointed for a defined term, three to five years. At the end of the term, each EC member will be considered for reassignment. There may be a need for them to become a project manager, division manager, program manager, or promoted to be just a scientist or technologist. In other cases, the appointment may be extended if it is critical for the Lab’s operation. This will allow us to expand the experience of our senior managers and to regularly bring fresh ideas to the leadership of the Lab.

Let me illustrate the importance to JPL of this approach. One of our most critical projects is the Mars ’07 Lander, because it will shape the future of JPL through the next decade in Mars exploration. This project’s leadership requires the best that JPL can offer in management, system engineering, and technology experience. So, I called on Mike Sander, who has my highest respect because of his broad experience, to accept moving up from the Executive Council to take this challenge. So, the message is that JPL leadership is not only in the Executive Council but also in our senior project, program and division managers.

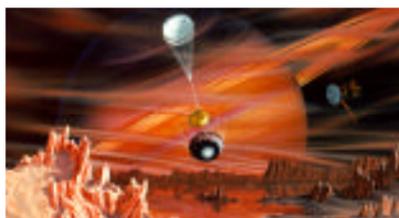
So, now let us look at the organization chart. [*Editor’s note: see page 7.*] In addition, most of the EC business will be conducted by four management councils that will broaden the engagement of employees by having a number of members in addition to EC members. [*Note: a chart showing the EC management councils is online at <http://www.jpl.nasa.gov/dailyplanet>.*]

In closing, I want to thank you for your patience. I know I have presented a lot of information (but unlike the President, you only get one chance at an inaugural speech in this job). And I also want to thank you for all the kind words of support you have expressed to me as I begin this new adventure at JPL. It is an honor and a privilege to have the opportunity to lead the laboratory and be your director. And I promise you I am going to give this job all that I have.

As we enter the 21st century, a tremendous era of space exploration is ahead of us. I am confident that together we’ll make history like our predecessors did. Together we will be the pride of Caltech, NASA and the nation. It won’t be all roses, of course, but the rewards are worth it. Ahead of us will be both rewarding and challenging moments. That’s the nature of being pioneers and explorers. Explorers are always venturing out from safe harbors and sailing out in new directions. We are the pioneers who sail the uncharted waters of space for our nation. We are the explorers who build cosmic sextants that point the way to new understanding about the universe and ourselves. Be bold. Be audacious. Be proud. Demand excellence from yourself and others.

And when you think of the future, remember the Next Generation. The next generation of rockets, spacecraft and instruments. The next generation of JPL’s history that we together will create. And the next generation of discoveries that await us out there in the heavens. Thank you.

# NEXT GENERATION

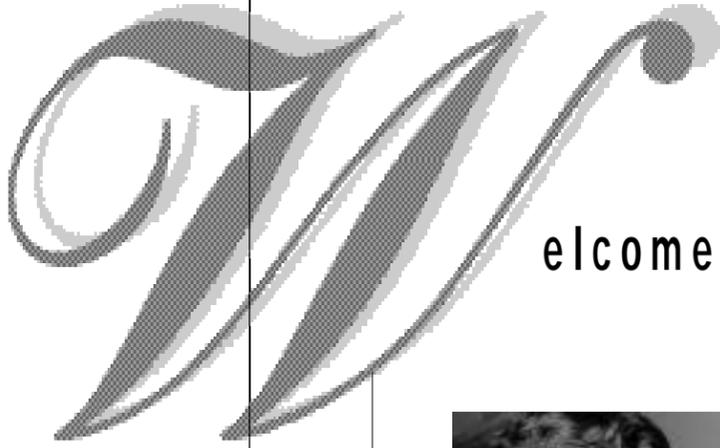


*“Reach for the Stars, and Bring the Heavens to Earth”*

*Over the next decade, JPL will:*

- Establish a permanent robotic presence on and around Mars
- Probe deep below the surface of Europa
- Explore Titan and the Saturnian system
- Bring samples from comets, asteroids, Mars and the solar winds
- Visit the far reaches of the solar system — Pluto and the Kuiper belt and the immediate neighborhood of our sun
- Map the infrared sky and image the disks around stars to learn how the Universe evolved
- Search for planets around neighboring stars
- Establish the interplanetary Internet of the future
- Shed light on the fundamental drivers behind the dynamics of our Earth: oceans and atmosphere, volcanoes and earthquakes
- Probe into the fundamental laws of physics by using the space environment and searching for gravitational wave

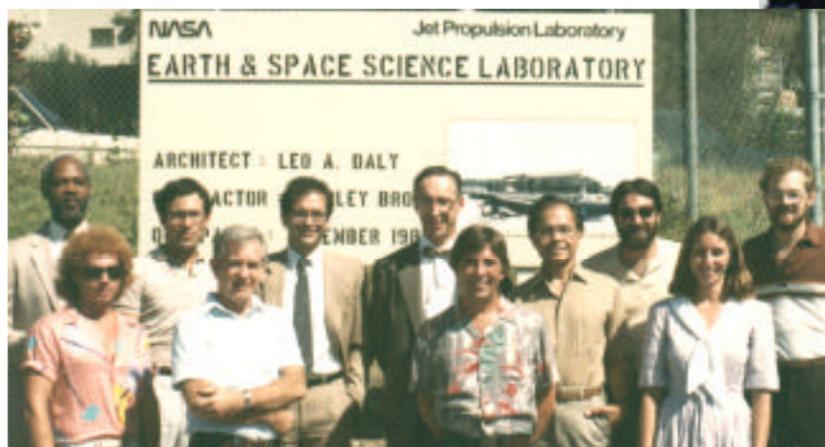




## Welcome, Director Elachi

JPL welcomed 30-year Laboratory veteran Dr. Charles Elachi as its eighth director on May 1. The pictures below are a small sample of the director's experiences as a leading engineer and scientist, his travels that have taken him around the world in pursuit of research for JPL, and his personal and JPL families.

*Clockwise, from top: Elachi hosting Jacques Cousteau (1980) and Great Britain's Prince Andrew (1989) during JPL visits; on skis with daughter Lauren, with daughter Joanna and on vacation with wife Valerie and Lauren; a radar mapping trip to Anchorage, Alaska with retired JPLer Elmer MacMillin; the future director as a Caltech student in 1970; and a 1976 visit to the Grand Canyon with JPLers Diane Evans and Tom Farr (right). Bottom picture shows Elachi (third from left in back row) with a group of JPLers at the groundbreaking for Building 300 in the mid-1980s. In front row, from left, are Jim Rasmussen, Walter E. Brown, Mike Kobrick and Evans; in back are Tam Antoine, Dan Held, Elachi, Richard Mathison, Ed Caro, Farr and Martin Ruzek.*



*Photos courtesy Charles Elachi*

Take a look at  
JPL's new online  
news source

<http://www.jpl.nasa.gov/dailyplanet>



**Editor**  
Mark Whalen

**Design & Layout**  
Adriane Jach  
Audrey Riethle  
Design Services

**Chief Photographer**  
Bob Brown/Photo Lab